

Work Order ID 141983

141983

Page 1

Tuesday, February 23, 2016 11:20:20 AM

Item ID: D4121-3 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Hose Assy
 Start Date: 2/23/2016 Start Qty: 6.00 ***6*** Cust Item ID:
 Required Date: 3/11/2016 Req'd Qty: 6.00 ***6*** Customer:
 Reference:

Approvals: Process Plan: ML5 Date: FEB 23 2016 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4121	D								
100	PURCHASING	0.00							
100									DAS
Purchasing	Memo	0.00							13
Purchasing	Create D2729-1 label and include with W/O								9-89
	Issue P/O: <u>31495</u>								
	Hose Assembly as per Dwg D4121								
	Possible Supplier: API								
	Material release note is required								
110	Receive & Inspect for Damage & Mat'l Certs	0.00							
110									
Packaging	Memo	0.00							
Packaging	Ensure Material Release Note is attached								

6
~~ML5~~ FEB 23 2016
6

6x 8/16-03-02

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : _____							

Work Order ID 141983***141983***

Page 2

Tuesday, February 23, 2016 11:20:20 AM

Item ID: D4121-3

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Hose Assy

Start Date: 2/23/2016 Start Qty: 6.00

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Cust Item ID:

Required Date: 3/11/2016 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool # Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

120

QC6- Inspect dimensions to drawing

0.00

120

QC

Memo

0.00

Quality Control

(6)

MAR 02 2016

130

Small Fab

0.00

130

Small Fab

Memo

0.01

Small Fab

Install D2729-1 as per Dwg D4121
using D2182-045 Heat Shrink
Batch: **B112922**

6

FF

MAR 07 2016

140

QC5- Inspect part completeness to step on W/O

0.00

140

QC

Memo

0.00

Quality Control

(6)

DAS
38
9-89
MAR 07 2016

DQA: _____ Date: _____



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Work Order update only ☐

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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Work Order ID 141983

✦ Tuesday, February 23, 2016 11:20:20 AM

141.983

Page 3

Item ID: D4121-3

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Hose Assy

Stop *NS2*

Start Date: 2/23/2016 **Start Qty:** 6.00

6

Cust Item ID:

Required Date: 3/11/2016 **Req'd Qty:** 6.00

6

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/
Work Center ID

Operation Description

Set Up/ Run Hours

Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
---------	--------	-----------	------------	------------	---------------	-------------

150

Identify as per dwg & Stock Location: 5-273

0.00

150

Packaging

Memo

0.00

Packaging

DAS
6
9.5.80

160

QC21- Final Inspection - Work Order Release

0.00

160

QC

Memo

0.01

Quality Control

ML5 MAR 10 2016

MCS MAR 09 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER :						
Misidentified ☐	☐	Past Due ☐							

Tuesday, February 23, 2016 11:20:23 AM

141983

D4121-3

Required Date: 3/11/2016

Required Qty: 6.00

Comments: IPP REV:A NEW ISSUE 10-10-05 JLM VERIFIED BY:DD IPP
REV:B AS PER ECN 11-598 11-06-05 JLM VERF:DD IPP REV:C
11.11.16 AS PER DWG REV.D DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
156003-6D0590		Purchased	No			110	Each	0.0000	1	6			
156003-6D0590													
Hose Assembly									**	6x SP/6-03-02			
D2182-045		Manufactured	No			130	Each	18.0000	1	6			
D2182-045													
Heat Shrink 4.5" Long				B112922					**	6 FF		MAR 07 2016	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST639		18							
				141023		18							
D2729-1		Manufactured	Yes			130	Each	0.0000	1	6			
D2729-1													
Part Id Label (Re-Issue)									**	6 FF		MAR 07 2016	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

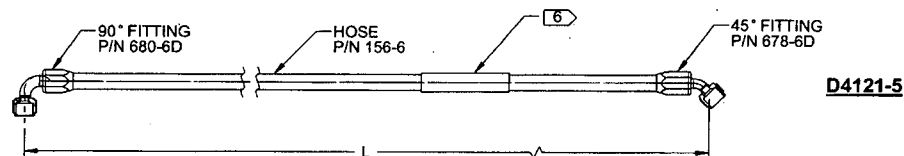
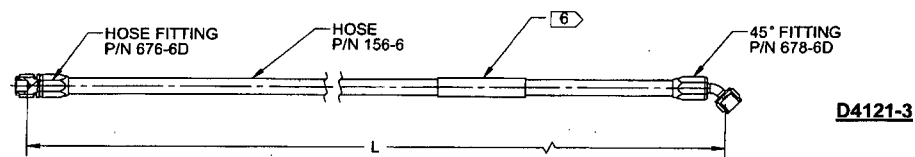
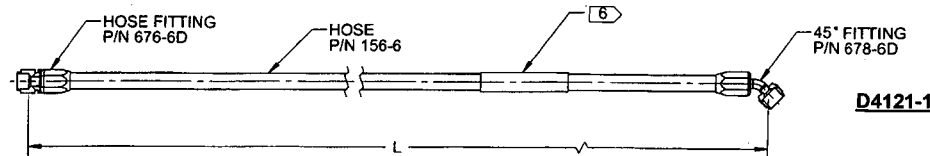
QA Closed: _____ Date: _____

Work Order update only ☐

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Misidentified ☐	Past Due ☐																																																																

8 7 6 5 4 3 2 1

HOSE SPECIFICATION			
DART P/N	STRATOFLEX P/N	VENDOR	L
D4121-1	156003-6D0274	API/ AVIAL	27.50
D4121-3	156003-6D0590	API/ AVIAL	59.00
D4121-5	156062D1054D000	API/ AVIAL	105.50



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE

WORK ORDER
NO. 141983 ML5
1602-23

RELEASED
2011-11-16
MJP

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N & B/N USING D2729-1 LABEL INSTALLED WITH D2182-045 HEAT SHRINK
- 7) WEIGHT: N/A
- 8) STAINLESS STEEL COVERING TO HAVE MINIMUM THICKNESS OF 0.015"

D	P/N 156003-6D0590 WAS 156003-6D0570 (ZN D2-1)	RF	11.11.14
C	ADD P/N 156062D1054D000 TO D4121-5	RF	11.07.27
B	P/N 676-6D WAS P/N 678-6S (ZN C4-1, B4-1); P/N 676-6D WAS 676-6S (ZN D8-1, C8-1); P/N 680-6D WAS P/N 680-6S (ZN B8-1); UPDATE STRATOFLEX P/N (ZN C2-1); UPDATE NOTE 8	RF	11.03.07
A	NEW ISSUE	RF	10.09.16
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE USA, INC. KENT, WA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. D
MFG. APPR.	<i>[Signature]</i>	D4121	SHEET 1 OF 1
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	HOSE ASSEMBLIES	NTS
DATE	11.11.14	COPYRIGHT © 2010 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

8 7 6 5 4 3 2 1



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO31495

Purchase Order Date 2/25/2016

PO Print Date 2/26/2016

Page Number 1 of 6

Order From :

VU-AVI003

Ship To : DART AEROSPACE LTD

AVIALL
PO BOX 842275

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

DALLAS, TX 75284-2275
USA

Contact Name

Vendor Phone 905-676-1695

Ship To Contact

Ship To Phone

Ship Via: FedEx Overnight collect

Ship Acct:

Buyer

Customer POID

Customer Tax #

Terms

Currency

FOB

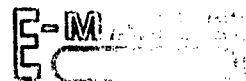
Chantal Lavoie

10127-2607

Net 30

USD

EXW - (Ex Works)



Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	156003-6D0274 AS PER DWG D4121 REV. D B141982	Hose Assembly	3/3/2016 Yes 3/3/2016		8.00 Each	\$195.23	\$1,561.84
Line Total:							\$1,561.84
2	156003-6D0590 AS PER DWG D4121 REV. D B141983	Hose Assembly	3/3/2016 No 3/3/2016		6.00 Each	\$237.85	\$1,427.10
Line Total:							\$1,427.10
3	156062D1054D000 AS PER DWG D4121 REV. D B141985	Hose Assembly	3/3/2016 Yes 3/3/2016		4.00 Each	\$419.96	\$1,679.84

PO Instructions: Fedex Acc#151793240

Note:

2/26/2016



Hose Shop 2755 Regent Blvd. DFW Airport 75261
Phone 972-586-1380 Fax 972-586-1381 www.aviall.com

TSO CERTIFICATION

It is hereby certified that (A) The parts and/or materials reflected herein were produced under Federal Aviation Administration approved manufacturing and quality control system/methods as set forth in the FAA issued technical standard order authorizations (TSOA) issued to Stratoflex and (B) such part and/or materials are new and are in condition for safe operation.

Customer Order Number: 1001945255

156003-6D0274

156003-6D0590

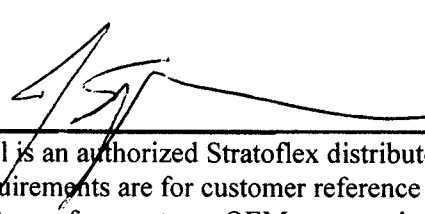
156062D1054D000

8 ea

6 ea

4 ea

Sp/6-03-02

Signed: 

Date: 02/26/2016

"Aviall is not providing OEM parts. Aviall is an authorized Stratoflex distributor providing TSO assemblies. Numbers referenced per customer requirements are for customer reference ONLY and are in no way intended to be represented as OEM parts. Any reference to an OEM part number does not authorize or reflect installation authority for this part. The installation authority is provided by the mechanic installing this product in accordance with FAR Part 43".

If applicable, satisfactory compliance with the conditions and tests required for TSO approval indicates the hose assembly has met the minimum performance standards as stated in the TSO. Furthermore, it is the responsibility of the installer to determine the installation eligibility and that it will not cause the hose assembly to be subjected to conditions in excess of those for which it has been approved.

FORM# CERT -001